

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of	)	
	)	
The Commission's Consultative Role in	)	GN Docket No. 09-40
the Broadband Provisions of the	)	
American Recovery and Reinvestment Act	)	

To: The Secretary

**COMMENTS OF  
THE WIRELESS INTERNET SERVICE PROVIDERS ASSOCIATION**

The Wireless Internet Service Providers Association ("WISPA") hereby provides its Comments in response to the Commission's *Public Notice*<sup>1</sup> regarding its consultative role in the broadband provisions of the American Recovery and Reinvestment Act ("Recovery Act").<sup>2</sup>

**Introduction**

Founded in 2004, WISPA is the trade association representing the interests of more than 350 Wireless Internet Service Providers ("WISPs"), vendors, system integrators and others interested in promoting the growth and delivery of wireless broadband service. WISPs provide fixed wireless Internet access services to more than 2,000,000 consumers and businesses. Many subscribers live in underserved areas of the nation, both rural and urban, where wired technologies, such as DSL and cable modem service, do not reach and are unlikely to extend because of the high infrastructure deployment costs. Created by the FCC's allocation of unlicensed spectrum in the early 1990s, many WISPs are eager to extend their networks to remote areas where demand for broadband is great but where broadband currently is not available. Many WISPs operate in license-exempt bands (*e.g.*, 900 MHz, 2.4 GHz and 5.8 GHz),

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<sup>1</sup> See *Public Notice*, "Comment Procedures Established Regarding the Commission's Consultative Role in the Broadband Provisions of the Recovery Act," GN Docket No. 09-40, rel. March 24, 2009 ("*Public Notice*").

<sup>2</sup> Pub. L. 115-1 (2009).

the 3650 MHz “licensed-lite” band and, in some cases, licensed bands. The vast majority of WISPs are “small business concerns,” as defined in the Small Business Act.<sup>3</sup>

WISPA has emerged as the advocacy organization representing the interests of WISPs. In 2007, WISPA filed comments in the 700 MHz proceeding seeking to make spectrum more accessible to small entities.<sup>4</sup> More recently, WISPA filed extensive comments and *ex parte* presentations regarding use of the television white spaces, advocating rules that would promote affordable wide-area fixed wireless services under a “licensed-lite” approach.<sup>5</sup> Last month, WISPA filed a petition for reconsideration of the white space rules, asking the Commission to eliminate costly and burdensome spectrum sensing rules and to amend other rules to make WISP deployment in rural and underserved areas more viable, flexible and cost-effective.<sup>6</sup>

WISPA recently filed Comments suggesting ways that the Commission can fulfill its obligations under Section 6112 of the Food, Conservation, and Energy Act of 2008,<sup>7</sup> which requires the Commission and the Secretary of Agriculture (“USDA”) to deliver a report to Congress containing recommendations on a comprehensive rural broadband strategy.<sup>8</sup>

With respect to the Recovery Act, WISPA representatives participated in the joint public meetings hosted by the National Telecommunications and Information Administration (“NTIA”) and the USDA’s Rural Utilities Service (“RUS”) advocating grant eligibility and selection

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<sup>3</sup> 15 U.S.C. §632.

<sup>4</sup> See WISPA Comments filed May 23, 2007 *In the Matter of Service Rules for 698-746, 747-762 and 777-792 MHz Bands*, Report and Order and Further Notice of Proposed Rulemaking, 22 FCC Rcd 8064 (rel. Apr. 27, 2007).

<sup>5</sup> See WISPA Comments filed Feb. 20, 2007 in *Unlicensed Operation in the TV Broadcast Bands; Additional Spectrum for Unlicensed Devices Below 900 MHz and in the 3 GHz Band*, First Report and Order and Further Notice of Proposed Rulemaking, ET Docket Nos. 04-186, 02-380, 21 FCC Rcd 12266 (rel. Oct. 18, 2006). See also Notices of Ex Parte Presentations from Stephen E. Coran, Counsel to WISPA, to Marlene H. Dortch, FCC Secretary, ET Docket Nos. 04-186 and 02-380, dated August 1, 2008; Letter from Jack Unger, WISPA Secretary and FCC Committee Chair, to Marlene H. Dortch, FCC Secretary, ET Docket Nos. 04-186 and 02-380, dated October 22, 2008; Notices of Ex Parte Presentations and Letters from Stephen E. Coran, Counsel to WISPA, to Marlene H. Dortch, FCC Secretary, ET Docket Nos. 04-186 and 02-380, dated October 28, 2008.

<sup>6</sup> See WISPA Petition for Reconsideration, ET Docket Nos. 04-186 and 02-380, filed March 19, 2009.

<sup>7</sup> See 110 Pub.L. 246; 122 Stat. 1651 at §6112.

<sup>8</sup> See WISPA Comments, GN Docket No. 09-29, filed March 25, 2009.

criteria that will best promote broadband service to rural, unserved and underserved areas.<sup>9</sup>

WISPA articulated its positions on these and other important issues in its April 10, 2009 response to the NTIA/RUS Request for Information.<sup>10</sup> On April 3, 2009, WISPA representatives met with Commission staff to present its views and answer questions concerning the *Public Notice*.<sup>11</sup>

Over the years, many WISPs have received federal and state grants and loans to assist successful construction and deployment of broadband facilities in rural areas. In particular, WISPs have utilized the RUS grant, loan and loan guarantee programs to fund community centers, educational services and broadband access in rural communities where a WISP can meet demand for broadband. WISPs have been very involved in these existing programs and proved to be responsible stewards of public funding.

WISPA believes that the Commission has a vital role in the Recovery Act process. The Commission has conducted numerous rule making proceedings, issued policy statements and published reports to help define the shortcomings and objectives of broadband deployment across the nation. Because Recovery Act funds are required to be distributed by September 30, 2010 and NTIA has publicly announced plans to make grants in three stages, it will be imperative for the Commission to help guide NTIA and RUS to ensure that funds are allocated for projects that are most deserving.

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<sup>9</sup> See NTIA/RUS Public Meeting Agenda, American Recovery and Reinvestment Act of 2009 Broadband Initiative, March 19, 2009 (listing Tom DeReggi, WISPA Vice President and Legislative Committee Chair as Speaker on Roundtable on Definition of Broadband).

<sup>10</sup> See WISPA Comments, NTIA Docket No. 090309298-9299-01, 74 Fed.Reg. 10716 (March 12, 2009) ("NTIA Response").

<sup>11</sup> See Notice of Ex Parte Presentation, letter from Stephen E. Coran, Counsel to WISPA, to Marlene H. Dortch, FCC Secretary, GN Docket No. 09-40, filed April 6, 2009.

## Discussion

Section 6001 of the Recovery Act directs NTIA to consult with the Commission on five specific terms and concepts – the definitions of “unserved area,” “underserved area” and “broadband,” and the non-discrimination obligations and network interconnection requirements that will be contractual provisions of NTIA grants. Having constructed and operated wireless networks in rural, underserved and unserved areas of the nation, WISPs are uniquely experienced in the trials and successes of providing service in areas where other ISPs have chosen not to offer service. WISPA strongly believes that the Commission, as an expert agency on broadband matters, can make significant contributions and provide valuable insight to the advance the benefits envisioned by the Recovery Act.

### ***Definition of “Unserved Area”***

For several years, the Commission has collected and reported information regarding the extent to which broadband and high-speed services are available.<sup>12</sup> Until the most recent Form 477 filing in March 2009,<sup>13</sup> the Commission collected broadband availability data by ZIP codes, which may not even be polygons,<sup>14</sup> and treated an area as “served” if only one resident in that ZIP code received service. Although the Commission has initiated a Notice of Inquiry as part of

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<sup>12</sup> See, e.g., *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, FCC 08-88, GN Docket No. 07-45 (rel. June 12, 2008).

<sup>13</sup> See *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvements of Wireless Broadband Subscribership Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscribership*, 23 FCC Rcd 9691, 9695 (2008) (“2008 Data Gathering Order”) (requesting broadband data by Census Tracts).

<sup>14</sup> See [http://www.manifold.net/doc/zip\\_codes\\_are\\_not\\_areas.htm](http://www.manifold.net/doc/zip_codes_are_not_areas.htm). (“ZIP codes are postal codes in the United States created by the US Postal Service. Perhaps the most common misconception in GIS is that Zip codes are polygonal regions or areas. People often think of mapping in the US as a hierarchy of ever-subdivided polygonal areas: states, counties, cities, zip codes. If they need higher resolution than a county, they next leap to zip codes because they think of zip codes as polygons. This is not true. Zip codes are **linear** features associated with specific roads or with specific addresses such as apartment buildings or military bases that are best regarded as a point. In some cases, Zip codes have no physical location because they are assigned to a mobile or abstract “location” such as a military ship. Even in the most common case of Zip codes assigned to streets, Zip codes **do not** clump together in groups that may be covered by rational polygons.”) (emphasis in original).

its requirement to develop a comprehensive national broadband strategy by February 17, 2010,<sup>15</sup> the Recovery Act provides an opportunity to correct these shortcomings to help ensure that federal funds are distributed to smaller communities that, while perhaps deemed “served” under the Commission’s past proceedings, are truly lacking in broadband access.

WISPA supports use of the more granular Census Blocks as the baseline measurement area because they more accurately define areas of broadband availability. Census Blocks are subdivisions of Census Tracts and unlike ZIP codes constitute polygonal geographic areas, which are more likely to correspond to areas of actual service. However, grant applicants should be permitted to designate areas that are smaller than Census Blocks if they can demonstrate that the area is “unserved” or “underserved.” Thus, to overcome the possibility that existing geographic designations, such as ZIP codes or Census Tracts, do not accurately measure broadband availability in a given area, no “unserved” or “underserved” community should be disqualified from grant consideration because of the community’s size.

As discussed in its NTIA Response, WISPA generally concurs with the Free Press’ proposal to define “unserved area” in three stages – “Completely Unserved,” “Severely Unserved” and “Moderately Unserved.”<sup>16</sup> WISPA believes that these tiers can be used to develop grant selection criteria that favor service to “Completely Unserved” areas over other categories of unserved and underserved areas. Moreover, by allowing applicants to define these areas by providing evidence of the level of existing service, funds can be targeted to the most

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<sup>15</sup> See *A National Broadband Plan for Our Future*, Notice of Inquiry, GN Docket No. 09-51, FCC 09-31, rel. Apr. 8, 2009 (“*NOI*”). In paragraph 62, the Commission asks for comment on the adequacy of Census Tracts for tribal and rural areas. WISPA plans to file comments in response to the *NOI*.

<sup>16</sup> See Turner, S. Derek, “Putting the Angels in the Details,” Free Press (Feb. 2009), at 9-10.

granular areas – *i.e.*, those communities that might be left behind if larger areas are established as the baseline areas for awarding grants.<sup>17</sup>

In its consultative role, the Commission should use the data obtained in its most recent Form 477 collection to identify the Census Blocks that fall within these categories. While perhaps imperfect both in terms of compliance and granularity, these data can certainly inform the early stages of the NTIA grant process by more accurately identifying “unserved areas.”

### ***Definition of “Underserved Area”***

WISPA believes that the term “underserved area” should be defined as an area where fixed service *may* be widely available but where no “fixed broadband” provider offers service capable of delivering downstream data at average transmission speeds exceeding 2 Mbps.<sup>18</sup> Again, no area or community should be deemed too small to qualify for funding, provided that the grant applicant can provide evidence to support the area’s definition.

Form 477 requires filers to designate the service they provide according to Commission-defined speed tiers. Consistent with WISPA’s suggestion above, the Commission should use these data to identify for NTIA those Census Tracts where no “fixed broadband” providers offer 2 Mbps downstream rates.

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<sup>17</sup> WISPA appreciates that, for data collection and reporting purposes and for development of a national broadband availability map, the Commission may need to utilize a common metric, as WISPA discussed in its NTIA Response. The collection of these data, and the administrative convenience of using larger areas as the baseline metric, should not, however, supersede the distribution of grant funds to smaller communities that are deemed “unserved” or “underserved.”

<sup>18</sup> These definitions are grounded in availability of broadband and not the rate of subscription to broadband. While perhaps imperfect, broadband mapping is not complete and the FCC Form 477 process does not request information at a granular level. Consequently, the best way to measure the extent of service at this time is to consider its availability.

## ***Definition of “Broadband”***

As the expert agency charged with implementing telecommunications policy, the Commission has experienced the trials attendant to defining “broadband.” In its consultative role, the Commission should acknowledge that its existing definitions of “broadband” are inadequate. WISPA understands that the opportunity to revisit the existing definition arises in the context of the *NOI*, and looks forward to participating in the pending notice of inquiry. In the meantime, it is important for NTIA to define “broadband” for purposes of making grant funds available in a timely manner under the Recovery Act.

In its NTIA Response, WISPA urged NTIA to distinguish between “fixed broadband” and “mobile broadband” because of the differing product markets for each. WISPA did not propose to define “mobile broadband,” but asked NTIA to make the public-interest determination that existing “fixed broadband” providers should be eligible for NTIA grant funds if they offer average speeds of at least 768 kbps in one direction, which is consistent with the Commission’s definition of “Basic Broadband Tier 1” service.<sup>19</sup> For purposes of evaluating grant proposals (as opposed to determining eligibility), WISPA asked NTIA to define “fixed broadband” to give grant applicants priority for proposing speeds up to 3 Mbps to the customer and at least 2 Mbps from the customer.

In consulting with NTIA, the Commission should provide its technical expertise in determining, for example, the credibility of an applicant’s claim with respect to its projected data transfer rate. The Commission also could determine the specific elements of determining “average” speed, “peak” speed, “engineered” speed, “vendor-defined” speed or other metric. In

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<sup>19</sup> See 2008 Data Gathering Order at ¶20 n. 66 (defining “basic broadband tier 1” to refer to services equal to or greater than 768 kbps but less than 1.5 mbps in the faster direction.)

addition, the Commission should help instruct NTIA on whether a particular speed claim is “technologically neutral,” as required by the Recovery Act.

### ***Non-Discrimination Obligations***

In its NTIA Response, WISPA urged NTIA to adopt “nondiscrimination” obligations that would prevent grant recipients from prioritizing, discriminating or impairing the content that it provides to a user, subject to reasonable network management techniques and practices. WISPA added that that there should be no discrimination based on classes of traffic. Users, not Internet service providers, should have the right to prioritize content if they so choose.

The Commission should exercise its consultative authority to help NTIA determine the permissible network management techniques that would be consistent with this policy. In its NTIA Response, WISPA listed three network management tools that it believes should be permissible.

- Prioritization for all 911 services;
- Deep Packet Inspection and other anti-virus techniques for limiting malware and other intrusions that can harm the network; and
- Quality Of Service for protocols such as Voice over Internet Protocol services.

The non-discrimination obligation also should allow providers to consider capacity constraints on networks that require broadband providers to use good engineering practices when managing their networks. Here again, the Commission should consult with NTIA on what constitutes “good engineering practices” and whether capacity is truly constrained.



### ***Network Interconnection Obligations***

As it told NTIA, WISPA believes that the “interconnection” obligation under the Recovery Act should require facilities-based retail broadband providers to have access to intermediate transport networks (the “middle mile”) and to the Internet backbone. Broadband providers proposing to serve “unserved,” “underserved” or “rural” areas should have equitable, non-discriminatory access to the rates, terms and conditions that the transport and backbone providers offer their own affiliates and largest customers. Absent these requirements, grant recipients will be forced to pass along higher transport and backbone access costs to customers, which could result in higher prices and lower adoption rates.

WISPs and other participants in the NTI/RUS public meetings spoke about the problem of affordable access to transport facilities, especially in tribal and rural areas located far from the Internet backbone. Because of this lack of access, WISPs often are unable to extend their networks into new areas where no alternative is available. In reviewing its Form 477 data, the Commission can determine areas that are “unserved” and “underserved,” and provide this information to NTIA. NTIA can then determine that these areas require the non-discrimination protections described above as it considers grant proposals.

## **Conclusion**

WISPA encourages the Commission to share its Form 477 data to inform NTIA on areas that are “unserved and “underserved” and thus deserving of priority funding. The Commission also can lend its expertise and understanding of network management techniques and speed definitions to assist NTIA in evaluating and comparing grant proposals.

Respectfully submitted,

### **THE WIRELESS INTERNET SERVICE PROVIDERS ASSOCIATION**

April 13, 2009

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